VMware vSphere 6, Part 4 of 5: Resources and Performance

Meet the expert: Jeff has held a broad spectrum of positions within the IT>field for over 30 years. Jeff has owned and operated his own IT business and has installed and supported networks and data centers at almost every level of the IT world. Jeff has recently authored both courseware and exams for Microsoft. For over 15 years, Jeff has worked as a consultant and trainer with a focus on the design of Enterprise Architecture, as well as Windows and VMware networks.

Prerequisites: This course assumes that students are familiar with the basic use of Windows and common use of the mouse and keyboard. No prior experience with Office 365 is assumed.

Runtime: 02:00:40

Course description: Welcome to VMware 6 Bootcamp. In this course we cover security and permissions and how others work in your environment. Also we will cover server and VM monitoring, performance from both inside and outside the VM. Finally a look at advanced ESXi and vCenter management, vMotion and policy driven storage SDRS.

Course outline:

Optimizing Resources
- Introduction
- Transparent Memory Page Sharing
- TPS Modified: ESXi 5.0-6.0
- Memory Overcommitment
- Balloon-Driver: vmmemctl
- Swap File
- VMkernel Swap
- Memory Overhead
- VMKernel Swap Location
- Host System Swap File
- Memory Usage
- Virtual CPUs
- VMkernel CPU Load Balancing
- CPU and Memory Resource Setting Terms
- CPU Resource Settings
- Memory Resource Settings
- ESXi 6.0 Utilization per VM
- Resource Shares
- Summary

Resource Pools and Latency-Sensitive Applications
- Introduction
- Resource Pools Overview
- Resource Pool Usage Example
- Resource Pool Example: CPU Limits
- Best Practices for VM Resources
- Latency-Sensitive Applications
- Latency-Sensitive Feature
- Summary

Performance Monitoring
- Introduction
- Performance Monitoring: Overview
- Performance Monitoring: Advanced
- Customize Performance Chart
- Troubleshooting Performance
- esxtop
- Performance Snapshots and vRealize Operations
- Veeam ONE 8 for VMware
- Veeam Management Pack for System Center
- Dell Foglight for Virtualization
- SolarWinds
- VMTurbo Virtual Health Monitor
- Summary

Configure Alarms and vCenter Logs
- Introduction
- vCenter Alarms
- Default Alarms in vCenter
- Alarm Settings and Notification Configuration
- ESXi Log Files
- Collecting Windows and vCSA Log Files
- Collecting vCenter Diagnostics Data
- Configuring Syslog on ESXi and Syslog Servers
- Review
- Summary

Storage Reports and vMotion
- Introduction
- vCenter Storage Reports
- Storage vMotion Migration
- Storage vMotion Requirements
- Storage vMotion Architecture
- Transition Process
- Transfer Process
- Storage vMotion in vSphere 5.x/6.0
- Summary

Configure vMotion
- Introduction
- vMotion Migration
- How vMotion Works
- vMotion: Host Requirements
- vMotion Errors and Warnings
- VM Map View
- Advanced vMotion Errors
- vMotion Enhancements in vSphere 6
- Cross vSwitch vMotion
- Cross vCenter vMotion
- Long Distance vMotion
- Summary

Enahnced vMotion and Dist. Resource Scheduler
- Introduction
- Enhanced vMotion Migration
- vCenter Host Cluster
- Distributed Resource Scheduler Overview
- DRS Cluster in the vCenter Inventory
- Retaining Host Resource Pools
- Configure Automation Level
- Initial Placement
- DRS Recommendations, History, and Utilization
- Virtual Machine Rules
- Groups and Rules: Virtual Machine to Host
- VM Overrides
- Enhanced vMotion Compatibility
- VM Swapfile Location
- Planned Downtime: Maintenance Mode
- Summary

DRS Clusters and Profile-Driven Clusters
- Introduction
- Monitor Cluster Objects State
- Monitoring the DRS Cluster: What to Look for
- Profile-Driven Storage
- vSphere Storage API for Storage Awareness
- Enable and Create VM Storage Policy
- Apply VM Storage Policy to VMs
- Datastore Clusters and Storage DRS
- Create a Datastore Cluster for SDRS
- Datastore Cluster Information
- Edit a Datastore Cluster
- Summary

Host Profiles and Linked Mode Group
- Introduction
- Host Profiles Overview
- What's New in Version 6
- Create Host Profile
- Edit and Attach Host Profile
- Check Compliance, Apply, and Edit Host Profile
- Linked vCenter Servers Overview: vSphere 5.1/5.5
- Linked Mode Group Prereqs: vSphere 5.1/5/5

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- Create a Linked Mode Group
- Manage Multiple vCenters and Enhanced Linked Mode
- Summary